

# George Kassir

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## EDUCATION

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### York University

*Bachelor of Software Engineering (BSE)*

Toronto, ON

Sept 2025 – Present

## EXPERIENCE

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### Coding Content Creator

*TikTok, YouTube, How2Codes*

Toronto, ON

July 2022 – Present

- Curated a developer community of 40,000 followers by providing instructional coding and theory videos.
- Developed Tutorials on languages such as Object Oriented Programming in Java, and basics of Python and JavaScript.
- Amassed around 25 Million views in total across platforms.

## PROJECTS

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### Vision Waste AI | *Python, OpenCV, Raspberry Pi Pico, LLaVA API*

Feb 2026 – April 2026

- Engineered an automated waste classification system using Computer Vision and Edge Computing to categorize recycling, compost, and landfill.
- Integrated multimodal LLMs (LLaVA/Moondream) to achieve high accuracy object detection for complex material types.
- Developed hardware-software interfaces on a Raspberry Pi Pico 2 W, optimizing resource usage for real-time inference on low power devices.
- Developed a custom data pipeline using Base64 encoding and JSON serialization to transmit image data from OpenCV to a local inference server.

### CNN From Scratch | *Python, NumPy*

Aug 2025 – Sept 2025

- Developed a CNN from the ground up using purely NumPy, implementing forward/backward propagation and matrix calculus for weight optimization.
- Developed custom layers for convolutions and max pooling, achieving an 88% classification accuracy on the MNIST dataset.
- Optimized computer speed by using CUDA, leveraging parallel processing to reduce training time to under 5 minutes on a GPU.

### Hackathon Winner: Excalibur | *Mediapipe, OpenCV, IMU Sensor Ring*

July 22 – July 26 2026

- Engineered a real-time computer vision pipeline with OpenCV and MediaPipe to extract body keypoints and compute joint angles for automated exercise form analysis.
- Fused pose-estimation data with IMU smart ring and EMG sensor readings to build a multimodal AI fitness coaching system.
- Won 1st place in theme and 3rd place overall among 800+ participants from 170+ regions at AdventureX 2026, China's largest hackathon.

## TECHNICAL SKILLS

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**Languages:** Java, Python, JavaScript, HTML/CSS, Matlab

**Frameworks:** LangChain, LangGraph, Mediapipe, FastAPI, Manim

**Libraries:** NumPy, Pandas, Scikit-Learn, Pytorch, OpenCV, Matplotlib, CUDA, Git